AMENDMENTS TO THE CLAIMS:

1. (Currently amended): A method of milking animals comprising measuring the total milk flow from all the teats of the udder of an animal being milked and generating data representative of the <u>measured total</u> milk flow rate, analysing the data to detect an abnormal milk flow from one teat indicated by a predetermined departure from a predicted relationship between the milk flow rate and the time from commencement of milking, and selecting the animal for medical inspection in the event that such a departure is detected, <u>wherein the data is analysed to detect a departure from a predicted stepped reduction in the milk flow rate towards the end of the milking procedure for the animal</u>.

Claim 2:   (Canceled):

3. (Currently amended): A method according to claim 2 <u>1</u>, wherein the analysis comprises calculation of the rate of change in the reducing milk flow rate in order to determine step changes in the milk flow rate.

4. (Currently amended): A method according to claim 2 <u>1</u>, wherein the predicted stepped reduction in the milk flow rate includes four step changes corresponding to the milk flow from respective teats falling at the end of milking.

Claim 5:   (Canceled):

6. (Currently amended): A method according to claim <u>21</u> 5, wherein a ratio of the peak flow duration to the peak flow rate is calculated and selecting the animal for medical inspection is dependent on the calculated ratio value exceeding a predicted value.

7. (Currently amended): A method according to claim <u>21</u> 5, wherein the peak flow rate and the duration at the peak flow rate are respectively compared with predicted values,

the animal being selected for medical inspection when the peak flow rate departs significantly from the predicted peak flow rate but the peak flow duration remains within acceptable limits of the predicted peak flow duration.

8. (Previously presented): A method according to claim 1, wherein the milk flows from the respective teats are brought together and the total milk flow is measured in a single milk meter.

9. (Previously presented): A method according to claim 1, wherein the predicted relationship between the milk flow rate and the time from commencement of milking for an animal is derived from data collected during one or more previous milkings of the same animal.

10. (Currently amended): An apparatus for milking animals, comprising a milk meter, a plurality of milk collectors for collecting milk from respective teats of an animal and conducting the milk to the milk meter, the milk meter providing an output representative of the total milk flow from the teats, and a device for receiving data output by the milk meter and analysing the data to detect an abnormal milk flow from one teat indicated by a predetermined departure from a predicted relationship between the milk flow rate and the time from commencement of milking, the device being arranged to generate an output to signal that medical inspection of the animal is advisable in response to such a departure being detected, and wherein the data receiving and analysing device is arranged to detect a departure from a predicted stepped reduction in the milk flow rate towards the end of the milking procedure for the animal.

Claim 11: (Canceled):

12. (Currently amended): An apparatus according to claim ~~11~~ 10, wherein the data receiving and analysing device is arranged to calculate the rate of change in the reducing milk flow rate in order to determine step changes in the milk flow rate.

13. (Currently amended): An apparatus according to claim ~~11~~ 10, wherein the data receiving and analysing device counts the number of steps in the reducing milk flow rate and generates a signal if less than four steps are counted.

Claim 14:   (Canceled):

15. (Currently amended): An apparatus according to claim ~~14~~ 22, wherein the data receiving and analysing device calculates a ratio of the peak flow duration to the peak flow rate and generates an output when the calculated ratio exceeds a predicted value by a predetermined amount.

16. (Previously presented): An apparatus according to claim 15, wherein the data receiving and analysing device compares the peak flow rate and the duration at the flow rate with respective predicted values, and generates an output when the peak flow rate deviates significantly from the predicted peak flow rate but the peak flow duration remains within acceptable limits of the predicted peak flow duration.

17. (Previously presented): An apparatus according to claim 10, wherein the data receiving and analysing device includes a memory for storing the predicted relationship between the milk flow rate and the time from commencement of milking for an animal derived from data collected during one or more previous milkings of the same animal.

18. (Previously presented): A apparatus according to claim 10, wherein the milk flow meter includes means to collect and compress milk flow data into data packages and to transfer the data packages to the data receiving and analysing device at intervals.

19. (Previously presented): An apparatus according to claim 18, wherein the data receiving and analysing device receives data packages from at least two milk meters and includes means for decompressing the data packages for analysis and/or display of the data.

20. (Previously presented): A method according to any one of claim 1, wherein milking conditions, namely the milking vacuum level, the period of hormone stimulation preparatory to milking, and/or the time of teat cup detachment at the end of milking, for a subsequent milking of the animal are determined in accordance with milk flow rate data generated during the milking of the same animal.

21. (New): A method of milking animals comprising measuring the total milk flow from all the teats of the udder of an animal being milked and generating data representative of the measured total milk flow rate, analysing the data to detect an abnormal milk flow from one teat indicated by a predetermined departure from a predicted relationship between the milk flow rate and the time from commencement of milking, and selecting the animal for medical inspection in the event that such a departure is detected, wherein the analysis includes determining a peak flow rate at which the flow rate remains substantially level for a major part of the animal milking procedure, and determining the duration of the milk flow at the peak flow rate.

22. (New): An apparatus for milking animals, comprising a milk meter, a plurality of milk collectors for collecting milk from respective teats of an animal and conducting

the milk to the milk meter, the milk meter providing an output representative of the total milk flow from the teats, and a device for receiving data output by the milk meter and analysing the data to detect an abnormal milk flow from one teat indicated by a predetermined departure from a predicted relationship between the milk flow rate and the time from commencement of milking, the device being arranged to generate an output to signal that medical inspection of the animal is advisable in response to such a departure being detected, wherein the data receiving and analysing device determines a peak flow rate at which the flow rate remains substantially level for a major part of the animal milking procedure, and determines the duration of the milk flow at the peak flow rate.